





# Bob Duncan Executive Director



Major Mike Clark and CPO Dan Hall (r).



Capt. Ron Henry (l) and CPO Greg Funkhouser (c) are joined by Director Duncan.



CPO Brandon Harris (1) and CPO Mark VanDyke (r) joined by Capt. Henry.

t was my pleasure during a recent board meeting to witness recognition of several conservation police officers (CPOs) from among the Department's ranks. CPO Dan Hall received the Conservation Police Officer of the Year Award, presented by Major Mike Clark. Dan and his family make their home in Smyth County, where he is currently assigned. Dan has served in this role since 1988, starting out in Dickenson County. He was recognized for his natural leadership skills and ability to work effectively with people from all walks of life. In Dan's words, he "always wanted to be a game warden," and by the smile on his face, I believe him! Dan acknowledged his wife, Tanya, who accompanied him to the meeting, for all that she's done over the years to support his efforts. As anyone in law enforcement will tell you, it is a 24/7 job that demands the support of family and your heart and soul to be effective.

Also recognized at the meeting were CPO Brandon Harris and CPO Mark VanDyke, each with a Life Saving Award. Due to their quick thinking and CPR skills,

they saved the life of an 8-year-old girl who had vanished underwater on Buggs Island Lake last summer. Both officers credited their behavior to the training they received at the agency while becoming a CPO. I consider them heroes and outstanding examples of law enforcement professionals who make all of us proud.

And finally, CPO Greg Funkhouser was recognized for his selection as the National Wild Turkey Federation's Officer of the Year. Greg was initially selected by the Virginia chapter; then at the convention in Nashville, he rose to this selection from a national field of officers. Congratulations, Greg! This national recognition marks the third time in the 11-year history of the federation's award that a Virginia officer has won. I believe that speaks for itself, and you'd be hard pressed to find anyone around here who isn't bursting with pride.

On behalf of the entire agency, I'd like to echo our congratulations to and deep appreciation for these men and the professional manner in which they serve the commonwealth.

### Mission Statement

To manage Virginia's wildlife and inland fish to maintain optimum populations of all species to serve the needs of the Commonwealth; To provide opportunity for all to enjoy wildlife, inland fish, boating and related outdoor recreation and to work diligently to safeguard the rights of the people to hunt, fish and harvest game as provided for in the Constitution of Virginia; To promote safety for persons and property in connection with boating, bunting and fishing; To provide educational outreach programs and materials that foster an awareness of and appreciation for Virginia's fish and wildlife resources, their habitats, and hunting, fishing, and boating opportunities.

Dedicated to the Conservation of Virginia's Wildlife and Natural Resources

Bob McDonnell, Governor

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# MAY CONTENTS



About the cover:
The little brown bat (*Myotis lucifugus*) is just one of Virginia's cave-dwelling bats that biologists are closely monitoring for signs of white-nose syndrome. Please contact a DGIF office if you find a dead or dying bat displaying any of the symptoms described in the feature on page 20.
Photo: ©McDonald Wildlife Photography

# VIRGINIA WILDLIFE

# MAGAZINE SUBSCRIPTIONS

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## Mom's Day Off by Beau Beasley Take the kids fishing this spring and give Mom some quiet time.

# Occoquan National Wildlife Refuge by Glenda C. Booth Visit a place where quiet waters and native grasslands meet, in

the middle of suburbia.







# Return to the Roanoke River by Bruce Ingram Running through the heart of the community, this river system is flowing with renewed life.

# Fishing From Terra Firma by Charlie Petrocci You don't need a truck and a fancy boat to enjoy the fishing opportunities along the Eastern Shore.

# Dark Days for Virginia's Bats by Cristina Santiestevan Biologists and conservationists hold their breath, as they watch for signs of white-nose syndrome.

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To this reptile's long list of endearing qualities, add educational asset.

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# Mom

by Beau Beasley

he month I spent at home with my kids after my wife broke her wrist and elbow was enough to convince me that being Mommy ranks among the world's toughest jobs. I'm a 25-year veteran firefighter and paramedic for Fairfax County who works 24-hour shifts and has seen more car wrecks, cardiac arrests, shootings, stabbings, and suicides than I care to recall. Now, I love my children. But as I told the guys at my station when I returned to duty after a month of leave, I had to come back to work because I needed a break.

Fast forward several years. This particular spring day held the promise of warmth but was still quite chilly—and that's just the way my nature girl Maggie likes it. My son Jeremiah, by contrast, is like his mother: Why be cold outside when you can be inside enjoying a warm cup of cocoa? Denied the cocoa and resigned to the cold, he contented himself with a well-sucked thumb. It was a great day to break out the fly rod and wet a line, but I knew that my long-suffering wife desperately needed a little peace and quiet. Consequently, I herded the children into the car and left Warrenton, heading west toward Syria on Route 29.

Graves Mountain Lodge in Syria hosts a number of family-friendly programs over the course of the year; it was to one such event that I was heading with the kids. Each April the Graves family celebrates Heritage Day at the lodge, a day that recalls a simpler time in our country's history.

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# 's Day Off



A covered wagon helps young participants and their families maneuver the grounds in comfort on their way to the river. Left, Maggie proudly displays a sunfish, which brother Jeremiah soon mimics (R).

Heritage Day is the ideal opportunity to leave your cell phone at home and enjoy the great outdoors together. Families come from across the state to revel in the simple pleasures of the lodge, including examining old farm equipment, meandering through a number of interesting exhibits, and especially, fishing on the property both in the Rose River and at privately stocked trout ponds.

Kids rule the roost on Heritage Day. If you see an adult holding a rod, chances are he's just serving as Junior's assistant. I was ready to head straight to the water, but my children wanted to see the creatures first—from chickens to llamas, to catfish to snakes—many provided by the Department. We then enjoyed a hayride, ate hot dogs, and picked up coloring books. A frontiersman in

period costume had numerous pelts (bears, wolves) on display for the kids to feel; he encouraged them to guess which pelt came from which animal and why. Jeremiah tried on a coonskin cap, looking for all the world exactly like I did nearly 40 years ago.

The kids and I enjoyed watching the fingers of my friend, Walt Cary, fly over his vice as he tied some of his famous popping bugs. Well known to fly anglers who adore his poppers, Walt is a dyed-in-the-wool curmudgeon who transforms into an old softy when he's around kids. He'd brought along a spinning rod, and he offered to loan it to me so that I could take the kids fishing nearby. I thanked him and headed for a likely looking farm pond. We got down to the water with our trusty gear in hand—and no bait.





Heritage Day is all about kids. With the Rose River stocked with trout and the ponds jumping with bluegill, it makes a great day to give Mom some R&R.

No problem! Recalling that back in my day collecting the bait was at least half the fun of fishing, I set Maggie and Jeremiah to digging for worms. Maggie was keen to turn over rocks, and Jeremiah dug at the slippery creatures with the tenacity of a hungry young robin. We had our bait in no time.

I rigged the rod and the kids cast our line into the pond's placid waters. The fishing was a bit slow at first, and Maggie soon tired of the waiting game and began to gather

clumps of wild grass. Jemmy, by contrast, captivated by the idea of catching a fish, sat happily sucking his thumb and alternately discussing fishing and fighting dragons.

Eventually Maggie returned with an impressive, grass collection, and the three of us sat on a log chatting and taking in the beauty of a cool spring morning. Indeed, the kids considered the day nearly perfect except that it didn't have Mommy in it. Suddenly Jemmy brought me out of my reverie: "I think I have one, Daddy!" he squealed. Sure enough, the little bobber had slipped beneath the pond's still surface, but I could just see it through the clear water as our prey hauled it away toward the

other side of the pond. I deftly set the hook and just as quickly returned the rod to Jemmy, who struggled to hold onto his prize.

"You can do it Jemmy! You can do it!" exclaimed Maggie, cheering on her brother and holding fast to the clumps of grass in her clenched fists.

His rod arched over dramatically and Jemmy, slayer of dragons, realized that this task would demand his all. He put the all-important left thumb to work on the rod and held on with all his might. Before long a healthy bluegill broke the surface of the pond, and we celebrated with whoops and hugs all around.

We spent the better part of the afternoon repeating this cycle of



events: casting, waiting, catching, and congratulating. I watched my kids enjoy the day without any toys or electronics, and I was struck by a powerful sense of nostalgia. In a flash I recalled the many times my own dear father had taken me and my little brother fishing and how special those moments were to me, then and now. Both my father and my wife's father died long before their grandchildren were born. I reflected with sadness that my dad would have cherished these fishing experiences with his grandkids—and I realized with joy that his legacy was alive and well because he had nurtured in me a love for the outdoors that I've begun to cultivate in my own children. Both

of my kids' granddads grasped the transcendent importance of investing time in their families; that's a lesson that I hope I've taken to heart.

After the fish cried "uncle," we made our way back to Graves Mountain Lodge to return Walt's rod and indulge in some homemade apple pie. We took in a few more sights, petted the animal pelts once again, and then headed for home. We hadn't been on Route 29 for more than a few minutes when I checked the rearview mirror and noted two nodding heads in their car seats.

My wife, looking refreshed and relaxed, met us in the driveway when we pulled in and began unbuckling children and washing dirty hands and faces while she listened to them recount the day's adventures.

"I was starting to get worried about you all—it's awfully late," she said, ushering us in for dinner. "You look tired, Beau," she said to me as I nodded over my plate.

"I'm exhausted," I replied. "You have *no idea* how hard it is to keep up with those two."

I thought I caught a brief but knowing smile and a twinkle in her eye, but I can't be absolutely certain of it.  $\square$ 

Beau Beasley (www.beaubeasley.com) is the author of Fly Fishing Virginia and a career captain with Fairfax County Fire and Rescue Dept. His next book, Fly Fishing the Mid-Atlantic, is scheduled to be released later this year.



Lee Walker



Photo courtesy of Bill Wallen, U.S. Fish and Wildlife Service (FWS).

# A wildlife refuge in Prince William County delights in diversity.

by Glenda C. Booth

ere at the Occoquan Bay National Wildlife Refuge, kids can hold and release a songbird and feel the pulse of the bird in their hands. It is life changing," says U.S. Fish and Wildlife Service ranger Marty Mc-Clevey. Just 20 miles south of Washington, D.C., this rounded nose of land in Prince William County at the confluence of the Occoquan and Potomac rivers is a rare natural oasis of multiple habitats in densely developed suburbia.

Part of the Potomac River Refuge Complex, Occoquan Bay refuge (OBNWR) is tucked away just half a mile from the busy mishmash of U.S. 1—an asphalt ribbon crammed with strip malls, car washes, chain stores, fast food joints, and gas stations. Clogged commuter traffic steadily spews up and down the highway, and the nearby Virginia Railway Express commuter train whizzes by 16 times daily. On the northeast are the 1,039-unit Belmont Bay Golf Villa Condominiums and a 110-acre golf course.

Youngsters in the area are lucky to see a tree out the school window or spot a starling atop the stoplight, but at Occoquan Bay, they can see, touch, and feel nature up close.

## A Rich Mix of Habitats

What brings over 16,000 visitors to this refuge every year?

In a one-square-mile area, there's a unique mix of wetlands, forest, native grasses, wet meadows, bottomland hardwoods, open freshwater marsh, and tidal marshes and streams. "The unusual number and interspersion of habitats provide a diversity of flora and fauna," touts Annette Baker-Toole, president of the Friends of the Potomac River Refuges.

"What makes Occoquan unusual is the fact that you have a number of



different habitats in a relatively small area, and as such, you have the associated species. We manage for a diversity of species and habitats," explains Refuge Manager Greg Weiler.

OBNWR has 20 plant communities of 700 plant species. A natural "centerpiece" is the native grassland, one of the largest remaining grasslands in the Chesapeake Bay watershed, dominated by eastern gamma grass, a warm season grass.

Out of 270 bird species found in the upper Potomac region, 240 have been seen at Occoquan, a sign of the importance of small natural areas along the river, "little stepping stones of habitat that birds seek out," Weiler Above, Occoquan Bay refuge seen from the ground and from the air. This wildlife oasis sits just 20 miles south of Washington, DC. Photo courtesy of Harry Diamond, U.S. Army.

stresses. OBNWR is a connective link to other parts of the Potomac refuge complex, ecologically speaking.

The land and water attract migrating songbirds, raptors, and waterfowl. "It's phenomenal," says McClevey, "because of species diversity." He's counted tens of thousands of scaup, black ducks, wood ducks, mergansers, redheads, ruddy ducks, and canvasbacks, among others.

Bald eagles thrive on OBNWR's shoreline, a habitat fast being gobbled up by development. "Where can

one go in Woodbridge to see such a range of wildlife, including 100 bald eagles out on the frozen shoreline in mid-winter?" asks Baker-Toole.

Spring brings the spiraling mating flight of woodcocks. Raptor rapture is common because the gamma grass grain attracts mice and meadow voles, ideal raptor prey.

Surveys show 70 butterfly species; 31 dragonfly species; 16 damselfly species; and a rich offering of insects, turtles, frogs, snakes, and other wildlife.



A rich mix of wetlands and native grasses draws birds, ducks, and meadow critters which, in turn, attract raptors and other predators. Photo courtesy of Bill Wallen, U.S. Fish and Wildlife Service.

# Why Go?

Occoquan Bay refuge has a two-mile wildlife drive for cars and bicycles and over four miles of hiking trails—part of the Department's Virginia Birding and Wildlife Trail. Weiler hopes for a visitor center some day.

Around 3,000 Prince William County students come annually to study watershed concepts. "It is a magnificent outdoor classroom for children and scientists," says Nicky Stanton, past president of the Virginia Native Plant Society.

"Students have an authentic, hands-on science experience," says Joy Greene, Prince William schools' environmental education coordinator.

Jim Waggener, the "prime mover" behind the refuge's establishment, has led weekly bird surveys for 20 years. In spring and summer, he adds butterfly and dragonfly counts. During the spring bird migration, volunteer banders collect data and evalu-

ate populations and trends at the onsite banding station.

In December, FWS conducts a managed deer hunt by lottery and DGIF sponsors a "generations hunt" and instructional workshop for youth. Youngsters are accompanied by an adult mentor and learn to hunt from elevated stands. "There are still too many deer," says McClevey.

Near the shoreline are five waterfowl blind sites and the Potomac offers sport and commercial fishing. FWS holds an annual youth fishing day in May, before the deerfly "explosion."

Weiler is proud of his "little refuge," explaining, "Biology is at the core of what we do." Because of its mix of habitats, Occoquan is an ideal place for nature exploration, from watching a dragonfly flutter on a stalk suspended over water, to a fox kit scampering across the path, to ospreys fishing just offshore.

# Challenges

"Probably the refuge's greatest challenge is pollution of the wetland areas," says Waggener. Stormwater runoff from nearby hard surfaces, upstream pollutants, and unhealthy air all bring degradation. The annual April shoreline cleanup fills two dumpsters with suburban detritus.

Invasive plants like Japanese knotweed, Japanese stiltgrass, garlic mustard, and mile-a-minute are common. With no biologist and limited staff, FWS employees try to control trees and plants like Chinese lespedeza in the grasslands. "Our biggest concern is basically keeping pace," says McClevey.

The Asian snakehead, dubbed "Frankenfish" by some, has made it to the far reaches of the tidal marshes.

Climate change lurks. National Oceanic and Atmospheric Administration experts say that, without action, the Potomac River could rise by two feet by 2050 or, with a surge, by

four feet. Refuge managers will soon receive an analysis of the impact of sea level rise on Potomac River properties. Because the refuge is low-lying, it could see some areas more permanently flooded, including the perimeter road, for example.

"Do you just let it happen?" asks Weiler. "Are the resources significant enough to be worth spending time and money to prevent impacts?" Already, during major storms, a large part of the refuge floods, he points out.

The occurrence of some species is changing, says Waggener. "Bald eagles and ospreys are gradually trending upward, reflecting their situation in the surrounding region, while great blue herons show a continuing decline. Birds of the woodlands and edges, like flycatchers, vireos, chickadees, titmouse, and warblers, are generally stable. Grassland-related species like red-shouldered hawks, kestrels, bobwhites, field and grasshopper sparrows, bobolinks and meadowlarks show distinct downward trends." Some species like short-eared owl, loggerhead shrike, and Henslow's sparrow are no longer reported, laments Waggen-

On the bright side, Occoquan Bay is the first site in Northern Virginia to document the bronze copper butterfly, a wet meadow species, and in 2009 the rare fine-lined emerald was seen.

# As Smith Saw It?

Occoquan Bay is coming full circle. When Captain John Smith disembarked here in 1608, he found a largely undisturbed peninsula, where Native Americans subsisted on abundant natural resources.

Over the next 400 years, Indians and colonists skirmished, Civil War soldiers camped out, farmers grew tobacco and wheat and raised hogs and cows. Then, the Army built a communications post and conducted top-secret tests to analyze nuclear explosions' impacts on civilian electrical systems. The Army left in 1991

and local conservationists, led by Waggener, launched a campaign to convert this prime waterfront real estate in the inexorably suburbanizing area into a refuge. Refuge advocates fought off schemes like Library of Congress warehouses, an office park, a golf course, a marina, and an entertainment complex. After a dogged effort and leadership from several key elected officials, in 1994 Congress passed and the President signed a bill adding it to the national wildlife refuge system.

Those "layers of civilization" have devolved into history. Today, with a train whistling, cars humming, and golfers whacking balls in the background, Occoquan Bay National Wildlife Refuge may be reverting to its 17th-century, near-pristine state.

In late January, Alexandrians Dave Boltz and Andy Bernick were stopped in their tracks by herring and ring-billed gulls that picked up snail shells in their bills, flew up some 30–50 feet and dropped the shells on the ice, cracking them so the meat was easier to access.

Then the two birders were spell-bound by a "food drop" when an adult bald eagle dropped a morsel to a juvenile in mid-air after the juvenile had flown under the adult and appeared to be harassing it. The juvenile avian "gymnast" made a mid-air catch.

Nature amazes.

Glenda C Booth, a freelance writer and legislative consultant, grew up in southwest Virginia and has lived in Northern Virginia for 37 years, where she is active in conservation efforts.

### The Basics

OBNWR is part of a U. S. Fish and Wildlife Service unit, the Potomac River National Wildlife Refuge Complex.

- Open year-round, daily; closed only for severe weather and during deer hunts. The Visitor Contact Station is open on some weekends.
- On the DGIF Wildlife and Birding trail at www.dgif.virginia.gov/vbwt/ site.asp?trail=1&loop=CPW&site=CPW02.
- Address: 14344 Jefferson Davis Highway, Woodbridge, VA 22191; (703) 490-4979. Admission fee: \$1 per person; \$2 per car.

### Resources

FWS Website and directions: www.fws.gov/occoquanbay/index.html Friends of the Potomac River Refuges: www.foprr.org/



# RETURN TO THE ROLL

## by Bruce Ingram

hear the diagnostic, rapid fire whistles—"yewk, yewk, yewk"—and immediately stop paddling in mid-stroke and look up. Seconds later, I spot an osprey hovering over the river and doing what this avian does best—preparing to dive into the water to snare some hapless fish. "An osprey, an osprey," I say to no one in particular. "I am floating the Roanoke River, catching smallmouth bass, and looking at an osprey."

Unless you are a long-time resident of the Salem-Roanoke area, you likely have no idea how remarkable this all is. I grew up in the 1950s and '60s in Salem, near the Roanoke River. As a kid, I seined for minnows in Gish Branch and when my parents gave me my first bike, I pedaled a

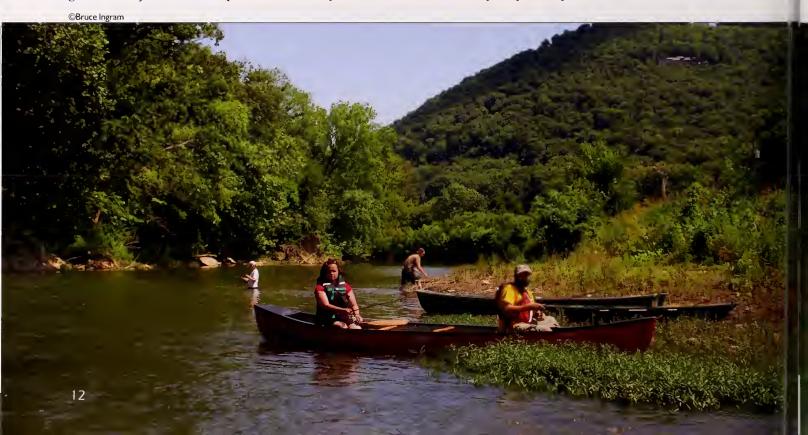
mile to Masons Creek (like Gish Branch, a tributary of the Roanoke) to angle for redbreast sunfish, chain pickerel, and smallmouths.

But except for two or three times, I never went fishing in the Roanoke. It was just too polluted and filled with trash. On one of those trips, while wading, I remember stepping on a car hood. Another time a fish kill had occurred, and dead carp and catfish lined the shore. My mom repeatedly warned that little boys who wade the Roanoke "get infections." So when I earned my driver's license, I traveled to the James instead.

Bud LaRoche, Region 2 fisheries manager for the Department (DGIF), is a Roanoke County resident and knows well the history of the river's urban corridor.

"For the most part, over the last ten years I believe that water quality has improved due to the replacement of the old sewer system (that ran along the river) with a larger and 'tighter' system," he says. "Also, I think government agencies and the public are seeing the river in a different light these days. It's more of 'a place that we should take care of attitude' and not one of 'we wish it did not run through town' attitude.

"I also think that the new Roanoke River Greenway that runs along the river for five miles now and eventually for 10 miles is becoming a great asset for the valley and for the river. I think it is providing a local place where people who maybe never used to get out and walk in nature are now able to basically walk across the street and stroll along the river. It provides them with a means of exercise and hopefully a new and improved sense of nature and, at the



# OKE RIVER

same time, gives them a new appreciation of the river. When people begin to better appreciate the river and see it as 'their river,' they protect it more and become more active."

LaRoche relates that the Roanoke River through town is fairly typical of a smaller ridge and valley stream in that it has a good diversity of fish—including several game species that attract anglers, such as smallmouth bass, redbreast sunfish, Roanoke bass, rock bass, chain pickerel, and even a few crappie.

The biologist adds that there is always the chance of catching trout, as two delayed harvest sections and two put-and-take trout stocking sections exist. The Roanoke does not support an abundance of large smallmouth bass because of the stream size and limited habitat required to support many larger fish.

However, there are a good number of fish in the 10- to 12-inch size range. One aspect of the fishery that can't be overlooked is that the stream is home to a relatively healthy population of the federally endangered Roanoke logperch (*Percina rex*).

Mike Donahue, a member of the Roanoke Valley Bird Club, informs that 245 species of birds have been identified at the Roanoke Sewage Treatment Plant (STP), located downstream from Wasena Park. Among the most exciting finds, says Donahue, are the endangered piping plover, loggerhead shrike, long-billed dowitcher, the three species of phalaropes, peregrine falcons, and Baird's sand-pipers.

"The STP is one of the best places in western Virginia to spot shorebirds, waterfowl, and raptors," enthuses Donahue. Left, the Salem Rotary Park float shown here offers many sections where paddlers appear to be out in the country. Below, Roanoke County's Jeff Wold holds a fine smallmouth that he caught from the Roanoke.



# WHAT HAPPENS UPSTREAM MATTERS

Want to know several reasons why the fishing and water quality have improved on the Roanoke? Ned Yost, who owns the historic McDonalds Mill property on the North Fork of the Roanoke in Montgomery County, details the sequence of events on the upper watershed.

"In the 1990s along the North Fork below Luster's Gate, a foresighted farmer, working with the DGIF, fenced his cattle out of his stretch of the stream," says Yost. "Upstream, then another landowner did the same on his stretch of the North Fork."

Next in 2007, the Department's Landowner Incentive Program (LIP) provided the impetus for three restoration projects, starting at Headwaters Farm, where a spring and a tributary join to give the North Fork its substantial flow. DGIF biologists Bill Bennett and Brian Watson tailored the LIP restoration work to the needs of each section of the stream. At Headwaters Farm, for example, the North Fork was returned to its original course.

Additionally, Yost says that high banks were graded back, then matted and planted with trees and grass. At another section, cedar tree revetments were anchored into eroding banks. Exclusion fencing and cattle crossings also were put in place. After this work was completed, the New River Valley Chapter of Trout Unlimited planted trees along two long stretches of the North Fork. Two more landowners downstream are now using LIP to aid in restoration of their properties. Catawba LandCare estimates restoration work is in process or has been completed on over 9.000 feet of the North Fork since 2007.

Ned Yost's goal: a reproducing trout population in the North Fork—an appropriate testimony to the restoration efforts.



DGIF Fisheries Biologist Joe Williams observes where cedar tree revetments were anchored into eroding banks on the North Fork of the Roanoke. What has been happening on the headwaters has helped make the fishery downstream better.

# GREEN HILL PARK TO SALEM ROTARY PARK

Access Points: If coming from Roanoke, turn left off West Main Street in Salem. Put-in is on river right within Green Hill Park. Parking spaces are numerous in a paved lot. If coming from Salem, turn right off Route 419 (Electric Road) to reach Salem Rotary Park. You'll have to slide your boat down a sloping bank on river left. Parking is limited.

Distance: 6 miles

**Rapids:** Numerous Class I, occasional Class II in high water.

The Green Hill Park float courses through the heart of downtown Salem. Of the three floats listed here, this one is the most likely to be plagued by low water conditions, especially by early July. One of the most interesting aspects of this float is that it contains two "Delayed Harvest Waters" (DHW), so a trout license is required from October 1 through June 15

The first DHW is from a sign posted at the upper end of Green Hill Park to the Route 760 Bridge downstream 1 mile to the Route 760 Bridge (Diuguids Lane). The second occurs from the Colorado Street Bridge

For the Salem Rotary Park float, paddlers will put in just upstream from the Route 419 Bridge. Right, the Roanoke River Greenway offers easy access to the stream for walkers, bikers, anglers, and birdwatchers. downstream 2.2 miles to the Route 419 Bridge. One result of the trout stocking effort that I have observed is rainbows, smallmouths, and largemouths finning the same pool—an uncommon occurrence anywhere in the Old Dominion.

## SALEM ROTARY PARK TO WASENA PARK

Access Points: Wasena Park is located in downtown Roanoke off Main Street via Brandon Avenue. The take-



out is on river right. You'll have to carry your canoe up a grassy bank. Parking spaces are numerous in a paved lot.

Distance: 5 3/4 miles

Rapids: Numerous Class I

At times, the Rotary Park junket gives the impression that one is out in the country, as sycamores, silver maples, and box elders envelope the shoreline and orchard orioles, hooded warblers, and wood thrushes serenade the paddler. On other occasions, houses and industrial buildings crowd the banks. Regardless, smallmouths, rock bass, and redbreast sunfish are abundant, and on one excursion with Roanoke County's Jeff Wold, he landed a fine 15-inch smallie.

Other characteristics are the numerous road and railroad bridges that span this section of the river and the concrete remains of former bridges and bridge supports that dot the bottom and banks. Several islands make for good places to stop for a shore lunch, as well as to observe spotted sandpipers, great blue herons, and red-winged blackbirds.

# RIVERS EDGE SPORTS COMPLEX TO SEWAGE TREATMENT PLANT

Access Points: At Rivers Edge Sports Complex, put-in is below the low water bridge on river right. The access point is below the Franklin Road Bridge and off Belleview Avenue. Parking is available. The river right take-out is beneath the Bennington Street Bridge. A paved walkway leads to a parking lot off Bennington Street via Riverland Road.

Distance: 4 miles

Rapids: Class I and riffles

The first part of this float is very urban; you will float past Roanoke Memorial Hospital and under several bridges. For most of the rest of the stretch, trees line much of the river left bank while homes, roads, and the greenway characterize the right shoreline. Like the previous excursion, the remains of old structures and low water dams create drops. The river's flow forms numerous braided channels (exciting places to fish), and near the end of the get-away on river right you can spot the famous Mill Mountain Star, which is the reason Roanoke is called the "Star City."



### SUMMING UP

Bud LaRoche sums up the importance of the Roanoke River to the Roanoke-Salem area.

"The Roanoke's a great recreational resource for urban dwellers because it's a great canoe and kayak stream and has good fishing for a diversity of species. It is home to a wide range of water birds and songbirds, and it's so close to home for many in the valley," he concludes. "In addition, the river is relatively accessible for many folks because there is so much public land along the stream, and where the land is private, many landowners have agreed to open access to the public—such as in the trout stocking areas.

"It's really a very unique situation to have such a wonderful recreational resource virtually in our own backyards. There aren't many areas the size of the Roanoke Valley that are fortunate enough to have such a river. Luckily, I think the different governing agencies across the valley are finally beginning to look at the river as more of a valuable resource instead of just a floodway that causes problems."

Bruce Ingram has authored many guide books, most recently Fly and Spin Fishing for River Smallmouths (\$19.25). Contact him at be\_ingram@juno.com for more information.

## INFORMATION SOURCES:

Catawba LandCare: www.catawbalandcare.org

Landowner Incentive Program (LIP): www.dgif.virginia.gov/habitat/lip/

Roanoke Valley Bird Club: www.roanokevalleybirdclub.com

Roanoke Valley CVB: www.visitroanokeva.com (540) 342-6025, (800) 635-5535

Roanoke Valley Chapter of Float Fishermen of Virginia: www.floatfishermen.org/rvc

# Fishing From Te

## story and photos by Charlie Petrocci

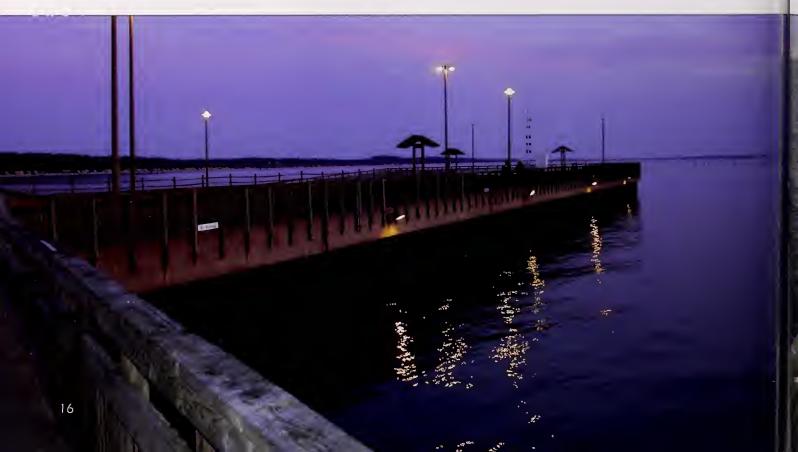
stood on the fishing pier, one in a long thin line of anglers spread out like sentinels waiting for an unseen battle about to unfold. Rods were the weapons and the quarry lay hidden below. Gazing down the row of various length rods, I noted many happy faces, of various color, gender, and age. The mixed group of anglers readily engaged their unknown neighbors in discussions of bait, hooks, politics, and weather. In between these sessions of verbal jousting, shouts of joy echoed off the water whenever a rod bent or a fish slid across the pier, evading little grasping hands. The spot and croaker were running and it was every woman, child, and man for himself. Fishing had brought us all here this day and it was the simplicity of shore-bound fishing that bonded us together.

The Eastern Shore is well renowned for its fishing phenomena. Generations of anglers have plied her waters using fishing vessels of every shape and size imaginable. And their efforts have been well rewarded. But you don't always need a boat to enjoy a great day of fishing among the shore's myriad coastal bays, tidal creeks, and beautiful beaches. There are many public fishing sites available for shoreline anglers and opportunities abound. And most of them include user-friendly, publicly owned fishing piers and park areas.

# Terra Firma Fishing

Though I own a small fleet of boats myself—from kayaks to a center console, and several types in between—I sometimes find it quite enticing to be able to jump in my truck with a cou-

ple of fishing rods, point the vehicle in the right direction, and head out to a shoreline spot nearby. Some of my favorite spots are of public domain, open for everyone, while others are a bit more intrepid in nature. All offer great fishing potential for a variety of Virginia gamefish, though. And fishing from a shoreline or a pier is a lot less taxing, since you don't face all the hassles associated with hauling a boat, gear, and added fuel expenditures. Of course fishing from a boat gives an angler a much better 'perch" over a shore-bound experience, but that being said, there have been many days when I've done just as well fishing from a dock as those anglers running a high dollar boat. Redeeming qualities of shoreline fishing include the fact that, if one spot doesn't produce, I can always pack up and spin off to another one down the road.



# rra firma

# The Eastern Shore Has Plenty to Offer Shore-bound Anglers

"I love to take my family fishing from piers each year, says Larry Stevens of Richmond, as he unhooks another fat croaker from his son's fishing line. It's safe, economical, and if the kids get bored, there are other things in the park for them to do." But from the looks of their wiggling guests in the cooler, the fishing was sport enough this day.

In addition to the simplicity of shoreline fishing is the camaraderie factor. If you are fortunate enough, sometimes you can find yourself in sole possession of a fishing spot. But more often than not, other anglers will be vying for the attention of fish at the same location. And I believe sometimes that is a good thing. I guess I'm of the gregarious sort, and fishing can be great common ground for conversation. I cut my teeth as a kid fishing from public docks and piers and found the verbal engage-

ment with some of those crusty old fishermen with whom I shared a rail almost as rewarding as the fishing action itself. I certainly learned a lot from these characters, many of whom became fixations on particular piers and had colorful names to boot.

# Gear Up

As far as tackle goes, you don't need anything too complicated to fish from shoreline areas. And that's an important consideration for fishermen on a budget or for making a family outing cost effective. In most Eastern Shore situations a 7- to 8-foot medium/heavy spinning rod outfit will allow you to haul off to those not-too-far-off sweet spots. And an 8- to 10-foot conventional rod will get you farther out if you are seeking bigger game. But since I find shoreline and *(continued on p. 19)* 



Cut spot and small bluefish can lead to catching larger bluefish, flounder, rockfish, and red drum. Bring plenty of tackle options and a measuring tape.

# Terra Firma Trip Gear Essentials:

- A good sized cooler to hold drinks, lunch, bait and, of course, fish
- Assorted types of bait
- Fishing rods (spinning and/or bait casting)
- Flashlight, lamp, or headlight if night fishing
- Cutting board, fish knives, rags
- ◆ Hat, sunglasses, sunscreen
- Gear bag with hooks, weights, and assorted lures
- Plastic bags to hold cleaned fish

The well lit pier at Kiptopeke (L) draws fish and fishermen. It features benches, a fish cleaning area, and room to spread out. Here, the author casts bucktails for stripers from the pier at Saxis.



# Publicly Accessible Piers

Listed here are a handful of publicly accessible, land-based fishing sites located around the Eastern Shore that offer plenty of opportunity for anglers and their families to enjoy a great day of fishing. Most of these public areas are handicap accessible and some are license-free for all anglers.

**Cape Charles Fishing Pier** 

(west on Route 184 to Mason Ave)

This 300-foot-long pier was redesigned in 2005, with 12-foot-wide passageways. It's lighted and sits right at the entrance to the Cape Charles Harbor channel. There is no saltwater license required to fish here. It also has a small covered pavilion area as well. Available species found here include striped bass, kingfish, spot, croaker, sea bass, red drum, black drum, cobia, flounder, and both gray and speckled trout.

### **Kiptopeke Fishing Pier**

This beautiful fishing area is located in Kiptopeke State Park and was developed in 1998. There is a small entrance fee to fish the park area. The pier is well lighted, handicap accessible, and there is plenty of room for anglers to spread out. Picnic tables, a fish cleaning station, and a large boat ramp are also on site. The pier offers great views of the old concrete breakwater ships, especially at sunset. The nearby beach is also a good spot to wade fish. Available species include speckled trout, red drum, Spanish mackerel, flounder, spot, croaker, striped bass, black drum, gray trout, kingfish, and even cobia.

# Morley's Wharf Fishing Pier

(off Route 606 in Wardtown)

This 150-foot-long public pier was completed in 1999. Located on beautiful Occohannock Creek, it has a 50-foot-wide "L" head area and is handicap accessible. Fishing is permitted 24 hours a day and there is a boat ramp adjacent to the parking area. It is also the site of an annual kids fishing tournament. You do not need a saltwater license to fish here. Available species include striped bass, spot, croaker, flounder,

red drum, speckled trout, kingfish, gray trout, and white perch.

### **Guard Shore**

(west of Bloxom, off Route 684)

This unimproved fishing area received its name because it served as a lookout post by American forces during the War of 1812. It has a sandy beach, which is great for wade fishing, and a long rip-rap section of rocks to cast from. It's a good place to score spot, croaker, flounder, trout, bluefish, and stripers.

### **Saxis Island Fishing Pier**

(off Route 695)

This Department-owned, lighted pier was built in 2002 and extends 200 feet out into the Pocomoke Sound area. With its 100-foot-wide "T" head, there is plenty of casting room for anglers. Fishing is permitted 24 hours a day and it's handicap accessible. Available species include striped bass, white perch, speckled trout, red drum, kingfish, flounder, gray trout, catfish, spot, and croaker.

### **Chincoteague Island**

(Route 175 east)

There are several places to fish from in and around Chincoteague Island. One is located on the way into the island off the Route 175 causeway. A bulkhead fishing area and shoreline area are located on either side of the Queens Sound Bridge. Park near the county boat ramp. Another user-friendly site is the Town Park fishing pier, complete with two covered pavilions. This park is located on the east side of the island and no license is required to fish here. Evening fishing produces trout, stripers, blues, and sharks, while daytime action can be good on flounder, spot, croaker, and small sea bass. Public fishing is also permitted along the bulkhead at the Town Dock boat ramp across from the firehouse on Main Street. This site experiences a strong tide, but flounder, croaker, bluefish, and stripers can be caught. And finally, Assateague Beach offers miles of unsurpassed beauty and plenty of room to fish. You can do well

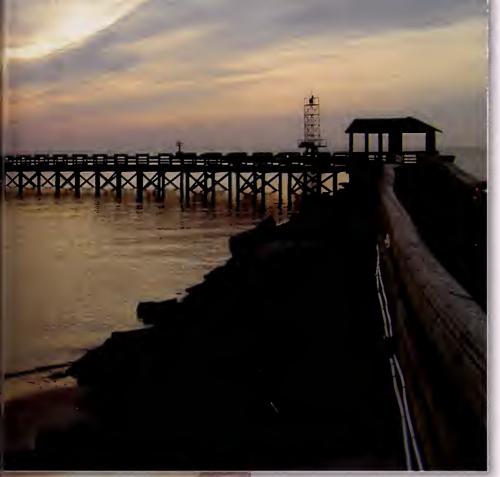


fishing out in front of the parking areas catching bluefish, spot, kingfish, blowfish, sharks, skates, and striped bass during their big fall run. You'll need a surf rod, though, to get in on the action.

### Sea Gull Island Pier

(on the Chesapeake Bay Bridge-Tunnel) Though technically not located on the Eastern Shore, it is easily accessible from this side of paradise. The "granddaddy" of all the piers in the region, this 600-footlong monster extends out into fertile fishing waters of the bay. It will cost you the vehicle bridge fee to fish here, but the potential action can be worth it. Species available include sheepshead, triggerfish, tautog, sea bass, trout, cobia, red drum, black drum, kingfish, flounder, sharks, blues, and striped bass. A restaurant on site helps take away the sting of a hungry appetite.

Of course there are other Eastern Shore land-side places to fish, including plain old wade-fishing from shore. But there's only one way to find them and that's to get out there, explore, and have fun fishing among unknown waters



The refurbished pier at Cape Charles gives anglers a shot at a variety of fish species at least nine months of the year and, as a bonus, beautiful sunset views.



The Sea Gull Island pier, located on the CBBT, offers over 600 feet to haul off from. It can become very popular during the summer fishing season.

pier fishing sites on the Shore are often limited to ubiquitous species, such as sea trout, croaker, spot, flounder, bluefish, white perch, and striped bass, you only need a good spinning rod or two.

Depending on where you have set up, there's always the chance to catch red drum, tautog, sharks, and even a larger class of rockfish, so you may have to gear up a bit. And since you never know what lurks out there, it's wise to spool up with good quality line in the 12- to 20-pound range. For new anglers or families there are rod, reel, and line outfits available that are already matched for pier fishing action. Buying one will take the complication out of choosing the right combination. And local tackle shops will be happy to help you get what you need.

For terminal fishing tackle, most shoreline anglers like to use a simple double dropper rig, garnished with two kinds of bait. This set-up will give you a shot at a couple of different species, in most cases, and lets you quickly determine what's in the area and which baits are working best. A fishfinder rig baited with strips of cut bait will also give you a shot at larger game. Easy and effective baits for pier fishing include bloodworms, squid, shrimp, and clam. Small, fresh cut-up spot or bluefish are also excellent. And for convenience, there are several very effective synthetic baits on the market, which you might consider keeping in your vehicle should a fishing opportunity arise.

Fishing action often follows the seasons. "Bread and butter" fish for many shore-bound anglers are spot, croaker, kingfish, blues, and flounder. These are primarily accessible during summer and early fall. But on the shoulder seasons of spring and late fall are striped bass, bluefish, tautog, sea bass, and weakfish, among others. With such a wide spread of seasonal species, anglers have plenty of fish to target.

Charlie Petrocci is a maritime heritage researcher, lecturer, and consultant who specializes in coastal traditions such as fisheries, seafood, and community folklife. He has lived on the Shore for 25 years.



FOR VIRGINIA'S

# BATS

20



# A MYSTERIOUS FUNGUS IS KILLING CAVE-DWELLING BATS FROM VERMONT TO VIRGINIA.

by Cristina Santiestevan illustrations by Spike Knuth

hen a New York caver took photographs of hibernating bats with mysterious white noses in February 2006, there wasn't a name for the condition. It had never been seen before. Now, four years later, white-nose syndrome has killed hundreds of thousands of bats, from New England to Virginia. Some estimates put the toll at closer to a million bats, with more dying every winter. "We are looking at some very significant changes in bat populations and species composition," says Rick Reynolds, a wildlife biolo-Indiana Bat

gist with the Virginia Department of Game and Inland Fisheries. Extinctions, according to Reynolds, are a

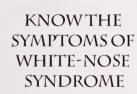
very real possibility.

Those first photographs were taken in Howe Caverns, about 40 miles west of Albany, New York. A year later, the condition had spread to four neighboring caves in New York. By the following winter, whitenose syndrome was recognized as a serious threat to bat survival, and had been identified in Connecticut, Massachusetts, and Vermont, as well as additional locations within New York. Then, in early April 2009, the Department (DGIF) received some very bad news from the U.S. Geological Survey National Wildlife Health Center in Madison, Wisconsin. White-nose syndrome (WNS) had made it to Virginia, as confirmed by laboratory analysis of several specimens DGIF had sent to the National Wildlife Health Center for testing. As

of early 2010, white-nose syndrome has been confirmed in five Virginia counties: Bath, Bland, Giles, Rockingham, and Smyth.

The affected bats' white noses—and ears, wings, and tails—are the product of a previously unknown type of fungus, *Geomyces destructans*. The fungus thrives in the cold and humid conditions that are typical of bats' preferred hibernation sites, and produces a fuzzy growth of white fungal fibers, known as hy-

Before it appeared on America's bats, this fungus had never been seen. No one knows where it came from, or why it has begun to appear now. No one knows whether the fungus is actually killing the bats, or if it is just a side-effect of some other condition. And, no one really knows why whitenose syndrome may be killing bats. In fact, beyond its undeniable lethality, there is precious little we do know about white-nose syndrome. And this may be the biggest problem with that we just don't know what to expect," explains Reynolds. "We just learn as we go."



To date, white-nose syndrome has been confirmed in only a handful of Virginia counties. But, if New England is any example, we can expect the fungal infection to expand rapidly in the coming years. We need your eyes to help us track white-nose syndrome in our bat population. Please contact the Department if you find a dead or dying bat, or if you see a live bat displaying any of these symptoms:

- white fungus on the nose, face, body, or wings
- flying outside during the day, especially during the winter and early spring
- trouble flying, or the appearance of confusion or disorientation



Little Brown Bat



These bats, along with the eastern big-eared bat (Corynorhinus rafinesquii), eastern small-footed bat (Myotis leibii) and southeastern bat (Myotis austroriparius), are considered species of greatest conservation need in the state of Virginia, and are a priority for conservation specialists and biologists. With the arrival of white-nose syndrome in Virginia, some biologists believe that all of Virginia's cave-dwelling bats should be included on this list. This would bring the list of conservation-priority species to eight—approximately half of Virginia's entire visiting bat population.

The trouble strikes cavedwelling bats during the winter months, when they should be hibernating quietly in caves and caverns. But, for unknown reasons, bats affected with white-nose syndrome are waking up in the middle of the winter. Some

simply shift around in their caves, but others actually fly off in search of food—sometimes in the middle of the day. This, of course, defies years of evolutionary adaptation to hibernating through the winter months when their food source—insects—is absent. Some biologists speculate that the fungus is uncomfortable, and disturbs the bats enough to wake them up.

Northern Long-eared Bat

ly use up all its energy reserves long before the winter ends. Hungry and confused, the emaciated bats fly from their caves in search of insects. Instead, they find nothing more than sunlight and snowscapes and starve

An itchy fungal infection with

lethal timing is one theory. Others sus-

pect that the fungus is only a symp-

tom of a larger problem, perhaps a

systemic infection or disease. Whatever the cause, white-nose syndrome kills bats with a terrifying efficiency. Some caves in New York have lost 90 to 100% of their bats. Whole populations are disappearing, and in the timeframe of just a year or two. Biologists are beginning to worry that we will lose entire species of bats.

Some might be tempted to mutter "good riddance" at the thought of bat extinctions. But bats play a critical role in our environment, on our farms, and in our backyards and gardens. A single bat can eat up to its weight in bugs every night. This adds up quickly. Across the United States, bats eat literally tons of moths, beetles, mosquitoes, and other insects every night. If white-nose syndrome continues to decimate bat populations, those uneaten insects will need

to be controlled in other ways, increasing the time and expense required to manage our yards and gardens, farms, and forestland.

Here in Virginia—with three endangered species of bats and a large network of caves and caverns—we could be hit especially hard by white-nose syndrome. According to Reynolds, biologists in West Virginia have already discovered caves with "buckets-full" of dead bats. Reynolds believes, "We will see a lot of the same here ... it's probably just a matter of time."

Cristina Santiestevan writes about wildlife and the environment from her home in Virginia's Blue Ridge Mountains.



Here are three simple ways you can help give Virginia's bats a fighting chance against white-nose syndrome:

- Biologists believe the fungus may spread through bat-to-bat contact, as well as through contaminated clothing or caving gear. For that reason, biologists have called for a complete moratorium on caving until they better understand WNS and how to treat it. At a minimum, you can help reduce the risk of infection by observing all cave closures, in Virginia and elsewhere.

  Visit www.dgif.virginia.gov/wildlife/bats/white-nose-syndrome/for a current list of cave closures.
- Learn the symptoms of white-nose syndrome and report any suspicious bat activity to DGIF at the following site: www.dgif.virginia.gov/wildlife/bats/white-nose-syndrome/wns-observation.asp.
- Share information about white-nose syndrome with friends and family, and support programs that are working to save bats, such as Virginia's Nongame Fund (www.dgif.virginia.gov/ads/?campaign=nongame-fund) and Bat Conservation International (www.batcon.org).



Eastern Small-footed Bat

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# Virginia's

# Conserving Turtles, Connecting Children with Nature

by Marie Majarov

he sparkle in a child's eye when experiencing nature close up and personal is magical. Sadly, however, many children today are becoming disconnected from streams, frogs, turtles, butterflies, forests, insects, and flowers, and instead learning about the natural world from TV programs or computer games. They experience little intimate contact with the wonders of nature itself.

Further disquieting is that precious natural resources are also at great risk. Loss and fragmentation of critical habitat have resulted in a decline in many species of flora and fauna once common and bountiful. What will be the consequences for our children's development? Where will our future nature stewards come from? What will be the condition of the natural world we leave them?

Richard Louv, author of the landmark book *Last Child in the Woods*, details research indicating that the costs to children alienated from nature will be seen in: "diminished use of the senses, attention difficulties, and higher rates of physical and emotional illnesses," the phenomena he terms "Nature Deficit Disorder." However, he passionately emphasizes that deficit is only one side of the coin: "By weighing the conse-

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# BOX TUTTLE Connection

quences of this disorder, we can become more aware of how blessed our children can be—biologically, cognitively, and spiritually—through positive physical connection to nature." Our focus should be not on "what is lost when nature fades but what is gained in the presence of the natural world." (p. 34-35)

The Department of Game and Inland Fisheries (DGIF), takes the imperative of conserving our wildlife and their habitats very seriously and has launched an innovative Virginia Box Turtle Monitoring Program statewide. The program is based on a 2008–2009 pilot study collaboratively undertaken by talented researchers at DGIF and Virginia Commonwealth University's Rice Center for Environmental Life Sciences. Further support and indispensable help have been



Above, what a handsome face! The distinctive red iris of this eastern box turtle, Terrapene carolina, indicates it is a male. Below left, teachers learn to identify parts of a box turtle shell and proper techniques to apply identification markings.



provided by the creative North Carolina Box Turtle Connection project.

At the heart of this program are full-day workshops held throughout Virginia to train science teachers to involve elementary, middle, and high school students directly in hands-on conservation techniques and activities that collect critical distribution and population data on a threatened, venerable old friend, the eastern box turtle, *Terrapene carolina*. Comprehensive, long-term studies describing box turtle population trends are rare and very much needed.

To many of us these peaceful reptiles seem a common and therefore plentiful species, but in actuality, they are a species in serious decline. In addition to habitat loss, trade of wild caught turtles, highway mortality, predation, and relocations by well-meaning citizens have all taken their toll. Even the rapidly expanding network of cell phone towers across the land greatly disturbs box turtle habitat, allowing more sunlight and wind to penetrate an area and changing critical temperature and food conditions. These factors, taken together with poor reproductive rates and few young turtles surviving, spell serious danger for the gentle box turtle.

Population and ecological data collected by the children and their teachers will inform conservation efforts on



Mecklenburg County Science Coordinator
Sandra Jewel learns how to properly measure a turtle's carapace by practicing with
the shell of a turtle that died in the wild.



J.D. shows teachers how radios are attached to a turtle carapace.

# Future Workshops and Wildlife Education

Suzie Gilley, who coordinates DGIF wildlife education in the schools, assists J.D. Kleopfer in arranging workshops and serving as the point person for teachers. Interested teachers can contact Ms. Gilley for information about future Box Turtle Monitoring Workshops and other exciting wildlife activities by email to Suzie.Gilley@dgif.virginia.gov or at (804) 367-0188. Parents who would like to have their children involved in more nature-based activities should encourage their children's teachers to contact Ms. Gilley.

the gentle turtles' behalf and also become part of another Department endeavor, the Wildlife Mapping Program, in which citizens and various groups collect wildlife-related information made available to everyone through the agency's biological databases.

### A Biologist and His Turtles

DGIF biologist and herpetologist John D. Kleopfer, known affectionately to all as "J.D.," directs this innovative program, understanding well the importance of youth experiencing nature first-hand. Ever since "I held my first red-eared slider as a child," he notes with an impish grin, "I was hooked on nature of all kinds—particularly turtles, rattlesnakes, and bats!"

That red-eared slider set J.D. on an inspired career path that brought him, eventually, to the Department five years ago. His stewardship and commitment to the environment, along with a drive to involve children, radiate—making him a first-class role model.

J.D. believes that the "charismatic" box turtle, (an interesting choice of words as it also describes J.D.!) is the ideal animal to help make inroads toward reconnecting youth to

nature. "Everyone, 8 to 80 years of age, loves turtles," he states, adding, "They are gentle-natured, slow-moving, easily handled, and carry a relatively low risk of communicating disease. They're perfect for educational purposes! However, we do not promote the collection of box turtles as pets, which has been a major conservation concern for this species."

Box turtle basics serve as a starting point for teacher training. True terrestrial turtles native to the forests and wet meadows of Virginia, box turtles show great variety in the colors and patterns of their carapace, or highdomed upper shell. They are the only species that can completely and tightly enclose themselves using the living tissue of their hinged plastron (bottom shell). Unchanged in their biology for over 20 million years (!), box turtles are creatures of simple habits: eating, resting, mating, and lumbering about for lifetimes that can last up to a century. Existing in territories as small as three or four acres, they often return to the same spot winter after winter to hibernate.

During the workshops, critical conservation principles are stressed: Box turtles do not take kindly to new locations, for example. Long distance movement patterns, which often put them in harm's way, are common in



In the field part of the training, teachers get experience and tips from J.D. Kleopfer on finding and assessing box turtles.



Ms. Soroh Bottorff, one of the first teochers trained in Kleopfer's progrom, prepores students in her closs to hondle ond measure box turtles in the wild. Cognizant of the dongers of removing box turtles from the wild, a fellow teacher's red-eared sliders ore used in the clossroom for proctice.

turtles that are released into strange new surroundings. While carefully stopping to move box turtles from the middle of roads to safety along the road edge (always in the direction they are heading) is beneficial, relocating turtles to one's backyard, moving them to a different location, or holding for study or as a pet for longer than 30 days dangerously puts their chances for survival at "slim to none." It is also a violation of Virginia wildlife laws to release a box turtle back into the wild more than 30 days after capture.

Difficulties in safely relocating turtles have led J.D. and colleagues at the Rice Center to design and complete a unique piece of research using radio telemetry to follow turtle movement. Methods of turtle relocation were carefully addressed to provide useful tools for wildlife managers who are frequently faced with this thorny conservation problem. Penning box turtles for a full year on the Rice Center property in an appropriate natural habitat significantly reduced the turtle's movement patterns when the pen was removed and subsequently improved their chance for survival.

# Teacher Education and Student Involvement

After box turtle basics, teachers study and practice the necessary skills to conduct a box turtle census, learning: how to survey the areas they will monitor, gender identification, age determination, biology and anatomy, theories of mark and recapture to estimate populations, proper techniques to measure and weigh turtles, data collection, field etiquette, and field safety. Detailed instructions in using turtle identification codes and marking turtles are demonstrated. Radio telemetry equipment and training to securely attach a radio to a turtle shell are introduced. Properly replacing a surveyed box turtle to the very same spot and orientation where it was found is underscored.



High school ecology students use DeLORME Atlas & Gazetteers, from o DGIF grant to schools, to understand the principles of lotitude and longitude.



Students learn how to measure the hinge area of a turtle's plastron.

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Each teacher is given a handbook that includes study guides, lesson plans, data collection forms, and materials for activities that will prepare their students for fieldwork with turtles; also provided, a field bag with calipers, triangular file, and tubular spring scale all used in data collection and turtle marking. Necessary permit applications for marking and surveying box turtle populations are completed.

Teachers leave after a very full day eager to return to their schools, their heads brimming with creative ideas and resources. Back home, however, is where the real work begins involving the students in box turtle monitoring activities. This authentic hands-on opportunity will promote learning by doing and actually encourages many lessons in addition to connecting young people directly with nature. Teamwork, reflection, observation, practical math integration, science, reading, computer literacy, and writing scientific as well as creative pieces about box turtles and their experiences are all part of the process. Who would have thought the humble box turtle could be so versatile and helpful in educating young people!

Take a look at the young faces in the pictures on page 27: students of Hanover High School Ecology Teacher Ms. Sara Bottorff, who enthusiastically uses turtle monitoring lessons in her classes. For many of them this was their first time ever to hold a turtle. It was memorable for all, and for some you could see the

magic happening.

Future herpetologists and biologists? Certainly, they are young people who will now grow up with an increased awareness of the importance and fragility of the natural world. And that would be a fine yardstick, by anyone's judgment, for measuring success.

Marie and Milan Majarov (www.majarov.com) are clinical psychologists, nature enthusiasts, and members of the Virginia Outdoor Writers Association who maintain a bluebird trail and butterfly garden in their backyard.



### **Resources:**

Last Child in the Woods; Saving Our Children from Nature-Deficit Disorder, by Richard Louv. Published by Algonquin Books of Chapel Hill. 2006.

The Virginia Box Turtle Monitoring Program Training Manual based on The Box Turtle Connection: A Passageway into the Natural World, by Ann Berry Somers and Catherine E. Matthews of the University of North Carolina Greensboro, 2006. Edited for the Virginia Department of Game and Inland Fisheries by John (J.D.) Kleopfer.

**DGIF Wildlife Education Websites:** 

www.dgif.virginia.gov/education/project-wild and www.dgif.virginia.gov/education/school-recognition

Virginia's Wildlife Mapping Program Website: www.dgif.virginia.gov/wildlifemapping



# 2010 Outdoor Calendar of Events

Unless otherwise noted, for current information and registration on workshops go to the "Upcoming Events" page on our website at www.HuntFishVA.com or call 804-367-7800.

**May 6–8:** *Great Dismal Swamp Birding Festival,* Suffolk; www.fws.gov/northeast/greatdismalswamp/.

May 8: 16th annual International Migratory Bird Celebration, Chincoteague National Wildlife Refuge; www.chincoteague chamber.com/.

May 15: Spring turkey season closes.

May 15: Roanoke River Renaissance, Wasena Park, Roanoke. For more information: www.floatfishermen.org/rvc/.

**May 14–16:** *Becoming an Outdoors-Woman*<sup>®</sup>, Graves Mountain Lodge. Ages 18 and up.

May 21–23: Mountain Lake Migratory Bird Festival, Pembroke; www.mountainlakebirding.com.

**May 22–28:** *National Safe Boating Week.* 

May 27, 29, June 3, 5, 8: An Introduction to Photographing Birds with Lynda Richardson at Lewis Ginter Botanical Garden, Richmond. Go to www.lewisginter.org or call (804) 262-9887, x322.

June 4-6: Free Fishing Days.

June 5–19: *Spring squirrel season,* certain areas.

**July 20:** Flat Ont Catfish I, Pony Pasture, James River, Richmond.

August 13–15: Virginia Outdoor Sportsman Show, Richmond, www.sportsmanshow.com. August 20–22: Mother-Daughter Outdoors Weekend, Holiday Lake 4-H Center, Appomattox.

**August 10:** Flat Out Catfish II, Pony Pasture, James River, Richmond.

August 28: Jakes Event; Page Valley Sportsman's Club; contact Art Kasson at (540) 622-6103 or artkasson@yahoo.com.

## Congratulations Young Outdoor Writers

At its spring meeting in Charlottesville, the Virginia Outdoor Writers Association announced winners of the 2009-2010 high school and collegiate writing competitions. The contests are held annually to inspire and reward young people for writing about their outdoors experiences. It is also hoped that undergraduate winners with such aspirations will be linked with potential career opportunities in wildlife, conservation, and natural history.

Winners of the *high school competition* are as follows:

**First place:** Grace Perkins, Senior, Lancaster High School in Whitestone

**Second place:** Natalie Hahn, Junior, Mills Godwin High School in Chesterfield

Third place: Owen Morgan, Freshman, George Wythe High School in Wytheville

Fourth place: Genevieve Campagnola, Senior, Lancaster High School in Whitestone

Winners of the collegiate undergraduate competition are:

First place: John Haworth from Virginia Beach; student at Virginia Tech



Students were recognized at the VOWA Annual Meeting March 17. L to R: John Haworth, Robert Bodendorf, Bob Duncan, Executive Director of the Virginia Department of Game and Inland Fisheries, Douglas Domenech, Virginia Secretary of Natural Resources, Genevieve Campagnola, Grace Perkins, and Natalie Hahn. Not pictured Owen Morgan.

**Second place:** Robert Bodendorf from Orange; student at Hampden-Sydney College

Look for publication of the first-place winning essays in future issues of this magazine. And from the staff of *Virginia Wildife*, congratulations to each winner!

The Virginia Outdoor Writers Association would like to thank the many sponsors who make these writing contests possible by contributing prizes and cash awards.



by Beth Hester

Rescuing Wildlife: A Guide to Helping Injured & Orphaned Animals

by Peggy Sue Hentz 2009 Stackpole Books orders@stackpolebooks.com 717-796-0411

"You are going about your business ... and suddenly a wild, injured animal interrupts everything. The choices you make will have an impact on the animal's life, and possibly your own. Having knowledge of the risks to the animal, as well as to you, your family, and your pets, along with the right advice from the beginning, can mean the difference between an educational experience and a disaster."

- Peggy Sue Hentz

It happens to all of us eventually. A songbird mistakes a plate glass window for a patch of sky and is stunned, or knocked unconscious. We hear strange scratching and squeaking noises in the attic and discover a family of squirrels has made it their temporary home. Perhaps a well-meaning neighbor alerts us to the fact that a truck just hit and killed the mother of a healthy fawn. We want to help, but how do we provide assistance to the animal without escalating the situation?

As a licensed wildlife rehabilitator and Director of Red Creek Wildlife Center, author Peggy Sue Hentz knows the pitfalls that often await the well-meaning, but underinformed rescuer. Wild animals can carry a wide range of diseases and parasites that may pose a danger. A frightened animal may unexpectedly 'come to' and bite or scratch, and the would-be rescuer could very possibly make the situation worse by acting on some myth about animal behavior. Note, for example: It is a myth that mothers will reject their babies because a human touched them.

Hentz understands these dilemmas, and her handy, easy-to-read volume gives everyday folks the tools they need to assess an animal rescue/rehabilitation situation and make the best possible decisions. She emphasizes that all states have laws governing the possession of some, or all, wildlife and that those laws are in place to protect both the animal and the public. She shares the role that the licensed wildlife rehabilitator plays in the grand scheme, and how the person who has happened upon an injured animal can best assist until more experienced help can be ob-

Through the use of helpful flowcharts for both birds and mammals, the rescuer can evaluate situations in a deliberate, systematic way, and the information gathered can then be relayed to the official rehabilitator, veterinarian, or fish and game representative who will ultimately be responsible for the animal's welfare.

This volume is filled with interesting, real-life tales of wildlife encounters, common rescue situations, and examples of particular wildlife behaviors—like that of killdeer who deliberately mimic injury to distract predators from their eggs. There is also helpful information about animal transport and proven ways to provide emergency care until help arrives. This is a valuable reference volume to have on hand, and it's a fun read to boot.



## Walleye Tagging Study Needs Your Help

The Department will be tagging walleyes again this spring at several locations across Virginia, as part of a 3-year study designed to learn more about angler catch rates and harvest. Tagging is planned for Lake Brittle, Philpott Reservoir, Hungry Mother Lake, South Holston Reservoir, and the upper New River.

Anglers who catch a tagged fish and return the tag will receive a cash reward of \$20. The tag will be located near the fish's dorsal fin and can be removed by cutting through the plastic attachment with scissors or a knife. The fish can then be released or harvested (minimum length limits apply). Simply return the tag and catch information to the address provided. Postage-paid envelopes are available at DGIF offices and local tackle shops. Important data include your contact information and answers to a few questions: date, time, and general location of catch; was fish harvested or released; were you fishing for walleyes; and, did you catch other walleves?

The information gathered from this study will help biologists make important decisions about managing the walleye fishery in Virginia. Every data point is important, so please take time to complete and return the tag. Then, collect your reward! □



ou humans have a saying, "We learn from our mistakes." If that is so, the old gentleman I live with must have a doctorate in education. One of the things he has learned is this: Never go looking at puppies with your children or significant other thinking all you are going to do is "just look." Puppies are downright adorable, and it is difficult not to get caught up in the moment and decide to take one home—especially if a man's litter (children) are clamoring for a new playmate. Here are some things to think about before you bring a pup home.

How does the dog you want match your lifestyle? If everyone is at work or school most of the day, that situation may rule out an indoor dog, or prevent you from having a very active dog, or a dog that gets bored when alone for long periods of time. You know the kind; they think of all sorts of creative (read, expensive) ways to improve the interior design while alone in the house.

If, instead, you have to keep your dog outside in a pen and you live in the suburbs, find out if your subdivision allows pens. Provided that you can have a pen, it should be large enough for your dog to move freely but it does not have to be huge. Keep in mind, however, that some dogs can be great leapers and climbers. If the fence height around the pen is too low, they will be back at your side before you can turn around. For this reason, it would also be a good idea to microchip your pet.

Some thought needs to go into where on your property you put the pen. The Alpha female in *your* pack will have a lot to say about this, so be prepared to take long walks from your house to your dog's doghouse when carrying water and food to your dog. Running a water line from your house to your dog's pen, though probably not in the budget, will save you a great deal of grief when watering your dog, washing your dog, and cleaning the dog pen. If you live in Virginia, you know our summers are hot and dry. If there is not enough shade to keep the dog's area cool, you will need to provide some type of protection from the sun. This can be easily accomplished with a tarp, grommets, and some bungee cords. However, you will have to make sure the tarp is sloped to allow rainwater to run off its surface.

Okay, now that you have a pen have you decided what kind of surface the pen will have? If you had thought that when you get home from work you and your dog will spend time together in the house, think again—if the pen has a dirt floor. Poor ol' Hoover will look like a Yorkshire (the pig variety) after the first rain. An alternative is pouring a concrete pad for your dog's pen floor. Again, maybe not in the budget, but a concrete floor helps keep the dog cleaner and makes cleaning the pen a great deal easier. That water line from the house to the pen is making more sense now, isn't it? You can try to get by with putting down concrete dust

or pea gravel as a flooring substitute but unless you place a geo-textile fabric underneath the gravel or stone, all that material will eventually either go into the soil or have to be replaced after a number of pen cleanings.

Now that we have got the pen thing covered, what about the doghouse? If you are handy and like to build things, there are a number of house plans on the internet. Keep in mind that if you build your doghouse, plywood does not weather well, and once moisture attacks it, you will find yourself building a new one. A wooden doghouse should not set flush on the ground because ground moisture will wick through the floor. Also, the entrance to the house should be designed so that when it rains the droplets do not splatter on the ground and inside. Keeping the doghouse off the ground allows for ventilation, as well. The roof of the house should have hinges so it can be removed for easy cleaning. There are also ready-made doghouses of various materials available. The house should not be so large that it remains cold in the winter or so small that your dog will not want, or be able, to enter it.

Remember that when you purchase a pup, you are acquiring something that may be living with you for 10–15 years. You are buying not just a pup, but something else... called responsibility.

Keep a leg up, Luke

Luke is a black Labrador retriever who spends his spare time hunting up good stories with his best friend, Clarke C. Jones. You can contact Luke and Clarke at www.clarkcjones.com.



visit our website at www.HuntFishVA.com.
Click on the Outdoor Report link and simply fill in the required information.



# Offshore with Nothing But a Compass

It was one of those spring days when the weather was just downright beautiful and I was on duty at Station Oregon Inlet on the Outer Banks of North Carolina where I was assigned as the Executive Petty Officer, or second in command of the unit. The ocean was flat calm and the water was the deepest tropical blue, giving me the sense that I was stationed much farther south—in Florida.

Later, around 10:00 p.m., I was making a round to secure the station for the night when I received a call from the radio room watchstander telling me there was a boater lost offshore in a 19-foot center console.

Upon speaking with the vessel's operator over the radio and asking some probing questions, it became clear to me that he didn't have any navigation equipment onboard and had no idea where he might be. He explained that he had watched the weather forecast and, since it was going to be such a calm day, decided to go fishing alone in the Gulf Stream. He left Oregon Inlet early that morning and navigated by following the charter fleet and steering a magnetic course of south-southeast. He planned to return after dark by steering a reciprocal magnetic compass course. He also thought returning after dark would make it easier for him to recognize lighted landmarks as he approached the shore.

His destination that day, the Gulf Stream, is one of the world's most intensely studied current systems. It begins in the Caribbean and travels north at average speeds of up to 5 miles per hour to the northern North Atlantic. The North Atlantic stretch begins upstream of Cape Hatteras, where the Florida Current ceases to follow the continental shelf. The position of the stream as it leaves the coast changes throughout the year. In the fall, it shifts north, while in the winter and early spring it shifts south (Auer 1987; Kelly and Gille 1990; Frankignoul et al. 2001, map below).

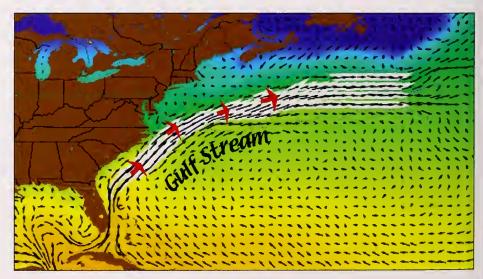
Obviously, I needed to narrow down the field of possibilities. It is common when you have a lost boat operator to ask them to point out landmarks and, if possible, aids to navigation so that you can determine on a chart where they might be. The operator was within sight of land. I asked if he could see the light on Bodie (pronounced Body) Island and explained the flashing characteristics. He replied that he couldn't see anything like that. I next asked if he could see the Wright Memorial and described its characteristics. He replied that he couldn't. Then, I asked if he could see Currituck Beach Light and explained characteristics of its light. Again, no luck! He said all that he could see were a lot of lights and buildings. This led me to believe he was near Virginia Beach.

Finally, I asked how he was able to see his compass in the dark. He told me that he had placed a flashlight on his dashboard next to it. Because of the magnetic influence of a flashlight with batteries, doing so would throw his compass off and make it very inaccurate.

I knew the operator didn't calculate his drift while he was fishing in the Gulf Stream and only added to his dilemma when he used his flashlight to see his compass. I pulled a chart out of the drawer and determined that since he was offshore for approximately 10 to12 hours and drifting with the Gulf Stream north and then navigating a course on an inaccurate compass for approximately 50 miles, he had ended up off of Rudee Inlet.

At that point I called Coast Guard Station, Little Creek and asked them to talk him into Rudee Inlet while I made arrangements for family members to bring his truck and trailer to Virginia to pick him up. The moral of this story: It's never wise to fish that far offshore alone in a boat that is too small for the situation and without any electronic navigation equipment onboard.

Tom Guess, U. S. Coast Guard (Ret.), serves as a statewide coordinator for the Boating Safety Education Program at the DGIF.





by Ken and Maria Perrotte

# Venison Piccata

This venison recipe is a home run and is commonly served when company visits. You'll want to use some of your best cuts of venison—such as a piece of backstrap loin or a nicely trimmed bottom round.

This is a variation on a traditional veal recipe. While some of you may not have tried dishes with capers, they nicely complement the lemon flavors of the sauce.

### Ingredients

1½ pounds deer backstrap or bottom round

1 cup milk (optional)

½ to¾cup flour

½ teaspoon black pepper

¼ teaspoon salt

½ cup butter, divided

2 tablespoons olive oil

3 tablespoons lemon juice

½ cup white wine, divided

3 tablespoons fresh parsley, chopped

2 tablespoons capers Lemon verbena or lemon slices for garnish, optional

### Preparation

Slice venison to about ½-inch thick. If using a small backstrap, you can butterfly the meat to make the pieces larger. Soak the venison slices in milk for 30 minutes to an hour. This step isn't absolutely necessary, especially with meat from a young deer, but it can help mellow the taste of an older deer. Drain and pat the meat dry with paper towels.

Combine the flour, salt, and pepper in a shallow bowl or deep plate. Over medium heat, melt ¼ cup of the butter in olive oil in an extra large skillet.

Dredge the meat in flour and brown on both sides. Add ½ cup of the wine and give the pan a gentle shake to make sure the meat doesn't stick. Cover, reduce heat to low, and cook for a couple of minutes.

Remove meat to a warm serving platter with a slotted spatula. It's okay if some of the browned flour remains in the pan. To the drippings in the pan add the lemon juice, parsley, capers, and the rest of the wine. If the sauce still seems too thick, add a little more butter or wine. Stir up any brown bits on the pan bottom and cook for another minute or two. Remove from heat and stir in remaining butter. Pour sauce over meat and serve immediately. Serves four with ample portions.

This pairs well with fresh steamed asparagus or sautéed zucchini.

Serve with the same variety of wine you used in cooking. We prefer a crisp Sauvignon Blanc. If you prefer a red wine, try a lighter red grape such as a Pinot Noir.

For a quick and delightful dessert to serve after your piccata, try these fried bananas.

### **Fried Bananas**

### Ingredients

- 4 bananas
- 4 tablespoons butter
- 4 tablespoons dark brown sugar
- 4 tablespoons brandy

### Preparation

Slice bananas in half crosswise; then slice each piece in half lengthwise. Melt butter over medium-low heat. Add bananas and fry on each side until golden brown and soft. Reduce heat to low and stir in brown sugar, turning bananas into the mixture.

Remove from heat, add brandy, stir, and return to heat. Cook for about another minute. Allow to cool slightly and then serve over vanilla ice cream. The brandy can be omitted if necessary, but it does add a nice zip to the dish. A few sprinkles of cinnamon or a couple of tablespoons of pecan pieces can be added with the sugar. Serves four.



# Just Say "No!" to Automatic - Part 2

In last month's column I mentioned the tendency for folks to use the automatic setting on their cameras way too often. A camera isn't creative, YOU are, so learn to take charge! First, pick your ISO. Then, decide whether the aperture or shutter speed settings are more important for what you want to accomplish with your photograph.

Let's look at aperture settings. An aperture controls the amount of light coming through your camera's lens, but more importantly, it controls depth-of-field. Depth-of-field is how much is in focus in front of and behind your subject. It works in a ratio of 1/3rd in front and 2/3rds behind. Depending on the aperture you select and the lens used, these distances can be in millimeters, inches, or even feet.

Locate the aperture settings on your camera. The number one thing to remember is that the smaller the aperture number, such as f2.8, the less that will be in focus in front of and behind your subject. This is also known as *minimum* depth-of-field. The higher the number, such as f22.0, the more will be in focus. This is called *maximum* depth-of-field.

Now you might be thinking, "who cares?" Well, you would care if you realized how depth-of-field can make or break a photograph! For example, let's say you are photographing a group of people standing in three rows. You focus on the middle person in the front row and select f4.0 as your aperture setting. Unfortunately, at f4.0 only your front row will be in focus because f4.0 has a minimum depth-of-field. If you select f22.0, you will have all three rows in focus.

So, why wouldn't you want to shoot f22.0 all the time? Well, maybe because you don't want everything in focus all the time. One creative technique used when photographing flowers is to shoot with a minimum depthof-field setting of f2.8, f4.0, or f5.6. These settings will blur everything surrounding the subject, making it stand out more from the background.



These berries were shot at f4.0 as an example of minimum depth-of-field. Not much in focus here! © Lynda Richardson



This image is an example of maximum depth-of-field shot at f22.0. See how much more is in focus? © Lynda Richardson

Working with apertures will take practice, so don't be afraid to experiment by selecting different apertures for the same subject. You will eventually want to move to full manual settings, but in the meantime, use the Aperture Priority mode. This setting will allow you to select a specific aperture while the camera automatically changes the shutter speed to make a good exposure. This way you will have control over the depth-of-field and the freedom to create better photographs.

In my next column I will discuss the importance of shutter speeds. Until then, just say "NO!" to automatic.

You are invited to submit one to five of your best photographs to "Image of the Month," Virginia Wildlife Magazine, P.O. Box 11104, 4010 West Broad Street, Richmond, VA 23230-1104. Send original slides, super high-quality prints, or high-res jpeg, tiff, or raw files on a disk and include a self-addressed, stamped envelope or other shipping method for return. Also, please include any pertinent information regarding how and where you captured the image and what camera and settings you used, along with your phone number. We look forward to seeing and sharing your work with our readers.

# Image of the Month



Congratulations go to Kimberly Harris of Stuarts Draft for her gorgeous photograph of lightning taken from her front yard, looking toward Mint Springs. Nikon D40x digital camera, ISO 100, 6 seconds, f4.0. Wow, what a shot!!!



Take A Boating Safety Class

# VIRGINIA WILDLIFE OUTDOOR CATALOG



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